

REMARKS

Claims 67-79 are pending and under examination. New claims 80-86 are newly presented herein. Claim 69 has been amended. Support for the amendment and new claims can be found throughout the specification and the claims as filed. In particular, support for amended claim 67 and new claims 80-86 can be found on page 5, lines 2-5.

Accordingly, these amendments and new claims do not raise an issue of new matter and entry thereof is respectfully requested.

Applicants and their counsel wish to thank the Examiner and her supervisor for the thoughtful telephone interview conducted June 19, 2008. To summarize, the interview discussed the breadth of what is encompassed by the term “synthetic analogue.” The Examiner and her supervisor have adopted a reading of the term which appears unorthodox to one skilled in the art (i.e. d-Leu being a “synthetic analogue” of Phe). Specifically, the Examiner has argued that the physical property of hydrophobicity shared by d-Leu and Phe make them synthetic analogues. The Applicants position is that choosing an arbitrary shared side-chain amino acid property does not, by itself, render one compound a “synthetic analogue” of another. For example, using the Examiner’s logic of comparing the side-chain properties, one could just as easily justify that d-Leu and Phe are not “synthetic analogues” because (1) they are not substantially isosteric, (2) Phe possesses the electronic property of aromaticity (benzene in side chain) while d-Leu does not, and (3) Phe, with its pi-system of the benzene ring can engage in pi-bonding (such as forming eta-complexes with metals) or aromatic stacking, while d-Leu can not. For these reasons, Applicants can not agree with the Examiner’s interpretation of “synthetic analogue.”

Applicants believe that one skilled in the art would recognize that term “synthetic analogue” has an important aspect with regards to the structural-relatedness of the compounds being compared. This aspect is absent in the Examiner’s interpretation of the term. When generating “synthetic analogues,” a skilled chemist can make small or quite substantial changes in structure, but some semblance of the original chemical structure would need to remain for the chemist to acknowledge the structural relatedness as being a “synthetic analogue.” D-Leu to Phe represents such a large change in structure, that “synthetic analogue” would be a very poor descriptor to compare the two compounds.

In the interest of moving prosecution forward in a timely manner, however, Applicants present herein newly amended 67 along with new claims 80-86 to address this issue as discussed in detail below.

Double Patenting Rejection

The rejection of claims 67-69 and 75 under the judicially created doctrine of obviousness-type double patenting as allegedly obvious over claim 1 of co-pending U.S. Patent No. 6,743,769, is respectfully traversed. Applicants respectfully request that this rejection be held in abeyance until there is an indication of allowable subject matter at which time Applicants will file a Terminal Disclaimer if appropriate.

Rejections under 35 U.S.C. § 102

Applicants respectfully traverse the rejection of claims 67 and 68 under 35 U.S.C. § 102(b), as allegedly anticipated by United States Patent No. 5,409,898, to Darveau et al.

Newly amended claim 67 now reads that any of the 7 amino acids of the core can be modified amino acids. Exemplary modified amino acids are described on page 5, lines 2-5 and reasonably constitute synthetic analogues. Darveau et al. does not teach modified amino acids (or synthetic analogues), nor does Darveau et al. disclose a sequence within the genus of claim 67. Because a rejection under 35 U.S.C. §102(b) requires identity of claim elements, either explicitly or inherently, claim 67 is patentable over Darveau et al. Withdrawal of this rejection is respectfully requested.

Claim 68 depends from claim 67 and should be patentable for at least the same reasons. Withdrawal of this rejection is respectfully requested.

Entry of the proposed amendments is respectfully submitted to be proper because the amendments are believed to place the claims in condition for allowance.

In light of the amendments and remarks herein, Applicants submit that the claims are now in condition for allowance and respectfully request a notice to this effect. The Examiner is invited to call the undersigned agent if there are any questions.

09/648,816

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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